Amendment to the Drawings

The attached papers of "Replacement Sheets" and "Annotated Sheets Showing Changes" include changes made to the Figure descriptions for Figures 7-12.

Attachment: Replacement Sheets

Annotated Sheets Showing Changes

REMARKS

Entry of this amendment is respectfully requested. Claims 1 to 20 and 22 are pending in the instant application. The Applicants herein cancel Claims 2-11, 13-17, and 21-22, without prejudice or disclaimer of the subject matter therein. Claims 1, 12, and 18 to 20, stand rejected. Claims 1, 12, 18, and 20 are amended herein. Support for the amendments can be found, for example, at page 7. No claims stand objected to. Applicants respectfully request reconsideration and withdrawal of the rejections for the reasons set forth herein. There is no issue of new matter.

The Office Communication of January 12, 2007, states that the amendment of 12/08/2005 attempts to delete Seq ID Nos from claims that were never recited in prior listings of the claims. This was a mistake made without any deceptive intention. The last claim amendment was made from an old claim set from a parent application. The claim amendments filed with this response are in relation to the as filed pending claim set.

In addition, the amendments to the drawings provided herein are in relation to the substituted specification filed on September 27, 2002.

The amended claims are directed to mutant allergens of Pro-DerP1. Pro-DerP1 is an enzymatically inactive pro-form of DerP1. None of the prior art documents disclose mutant versions of the *D. pteronyssinus* Pro-DerP1 protein. Further, none of the documents suggest introducing mutations into the *D. pteronyssinus* Pro-DerP1 protein in order to obtain an enzymatically inactive protein which has reduced allergenicity compared to wild type DerP1 protein, and which may be used to treat an individual suffering from an allergy to the DerP1 protein.

Claim Rejections Under 35 USC § 102

Claim 1 stands rejected under 35 U.S.C. §102(b) as being allegedly anticipated by Foster *et al.*. The Examiner suggests that a recombinant bee venom mutant allergenic enzyme anticipates (original) Claim 1.

Without conceding the validity of this rejection, and to further prosecution, the Applicants herein amend the rejected claim in a manner that obviates the asserted basis for this rejection. The Applicant respectfully asserts that, due to the amendments made to the existing claims, this rejection is now moot. Specifically, the Applicant herein amends Claim 1 to recite "A recombinant mutant pro-DerP1 allergen from *Dermatophagoides pteronyssinus*...".

Claim 1 stands rejected under 35 U.S.C. §102(b) as being allegedly anticipated by Robinson *et al.*. The Examiner suggests that Robinson teaches a substitution encompassed by SEQ ID NO. 2.

Without conceding the validity of this rejection, and to further prosecution, the Applicants herein amend the rejected claim in a manner that obviates the asserted basis for this rejection. The Applicant respectfully asserts that, due to the amendments made to the existing claims, this rejection is now moot. Specifically, the Applicant herein amends Claim 1 to recite "A recombinant mutant pro-DerP1 allergen from *Dermatophagoides pteronyssinus* wherein said mutant allergen comprises an alanine substitution of the Cys132 residue of pro-DerP1." The substitution described therein (SEQ ID NO. 1) is not described in the Robinson *et al.* reference.

In view of the foregoing remarks, the Applicants respectfully requests that the Examiner withdraw his rejections of Claim 1 under 35 U.S.C. § 102(b).

Claims 1 and 18 stand rejected under 35 U.S.C. §102(e) as being allegedly anticipated by US 6,287,559. The Examiner suggests that '559 teachings of vespid allergen mutations with adjuvants for treating allergy stings anticipates (original) Claim 1.

Without conceding the validity of this rejection, and to further prosecution, the Applicants herein amend the rejected claim in a manner that obviates the asserted basis for this rejection. The Applicant respectfully asserts that, due to the amendments made to the existing claims, this rejection is now moot. Specifically, the Applicant herein amends Claim 1 to recite "A recombinant mutant pro-DerP1 allergen from *Dermatophagoides pteronyssinus*...".

In view of the foregoing remarks, the Applicants respectfully requests that the Examiner withdraw his rejections of Claim 1 under 35 U.S.C. § 102(b).

Claim Rejections Under 35 USC § 103

Claims 1 and 18-20 stand rejected under 35 USC §103(a) as being allegedly unpatentable over US 6,287,559 in view of US 5,762,943. The Examiner posits that it would have been obvious for one skilled in the art to add 3D-MPL to vespid allergen mutations to make the allergen immunotherapy safer.

Without conceding the validity of this rejection, and to further prosecution, the Applicant herein amends the pending claims terms to obviate the asserted basis for this rejection. Specifically, the Applicant has amended Claim 1 to recite "A recombinant mutant

pro-DerP1 allergen from *Dermatophagoides pteronyssinus* wherein said mutant allergen comprises an alanine substitution of the Cys132 residue of pro-DerP1". The Applicant respectfully asserts that, due to the amendments made to the existing claims herein, this rejection is now moot.

In view of the foregoing remarks and claim amendments, the Applicant respectfully requests that the Examiner withdraw his rejection based on Claims 1 and 18-20 under 35 U.S.C. §103.

Claim Rejections Under 35 USC § 112

Claims 1 and 18-20 stand rejected under 35 U.S.C. § 112, first, as allegedly failing to comply with the written description requirement. Specifically, the Examiner suggests that "the scope of claim 1 is enormous" and that the claims are drawn to any and all allergens.

Without conceding the validity of this rejection, and to further prosecution, the Applicants herein amend the pending claims to obviate the asserted basis for this rejection. The Applicants respectfully asserts that, due to the amendments made to the existing claims herein, this rejection is now moot. Specifically, the Applicant herein amend Claims 1 and 12 to recite "A recombinant mutant pro-DerP1 allergen from *Dermatophagoides pteronyssinus*...".

In view of the foregoing remarks and claim amendments, the Applicants respectfully requests that the Examiner withdraw the rejections of Claims 1 and 18 - 20 under 35 U.S.C. § 112, first paragraph.

Claim 12 stands rejected under 35 U.S.C. § 112, second paragraph, as being allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.

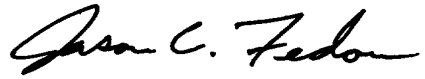
Specifically, the Examiner suggests that claim 12 recites a protein, but recites a nucleic acid sequence to describe a protein.

The Applicants assert that Claim 12 is directed to the protein sequence found in SEQ ID NO. 1. This sequence is a protein sequence as filed in corrected sequence listing filed on April 11, 2006, and the original specification.

In view of the foregoing remarks and claim amendments, the Applicants respectfully requests that the Examiner withdraw the rejections of Claim 12 under 35 U.S.C. § 112, second paragraph.

The Applicants reserve the right to prosecute, in one or more patent applications, the claims to non-elected inventions, the claims as originally filed, and any other claims supported by the specification. The Applicants thank the Examiner for the Office Action and believe this response to be a full and complete response to such Office Action. Accordingly, favorable reconsideration and allowance of the pending and new claims is earnestly solicited. If it would expedite prosecution of this application, the Examiner is invited to confer with the Applicants' undersigned agent.

Respectfully submitted,



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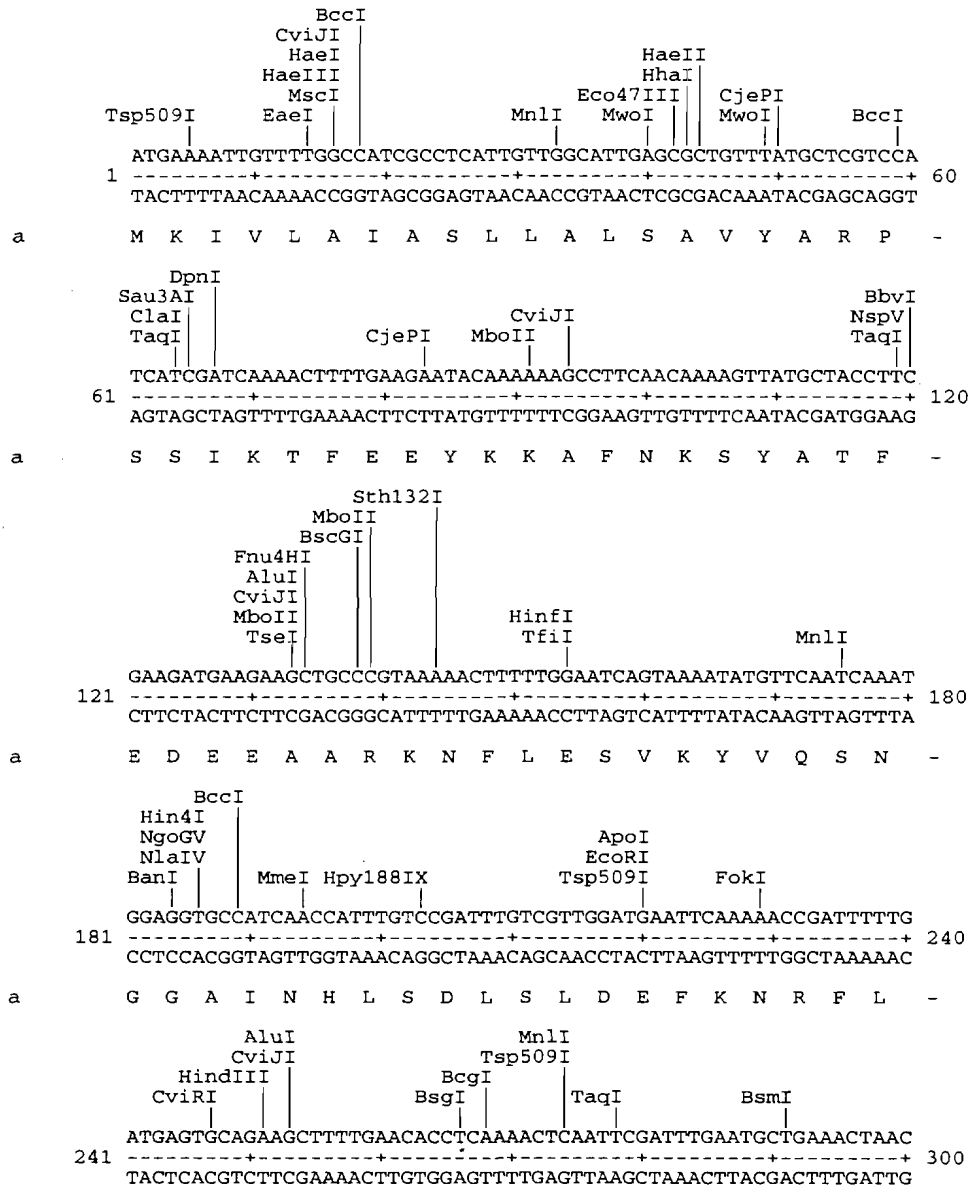
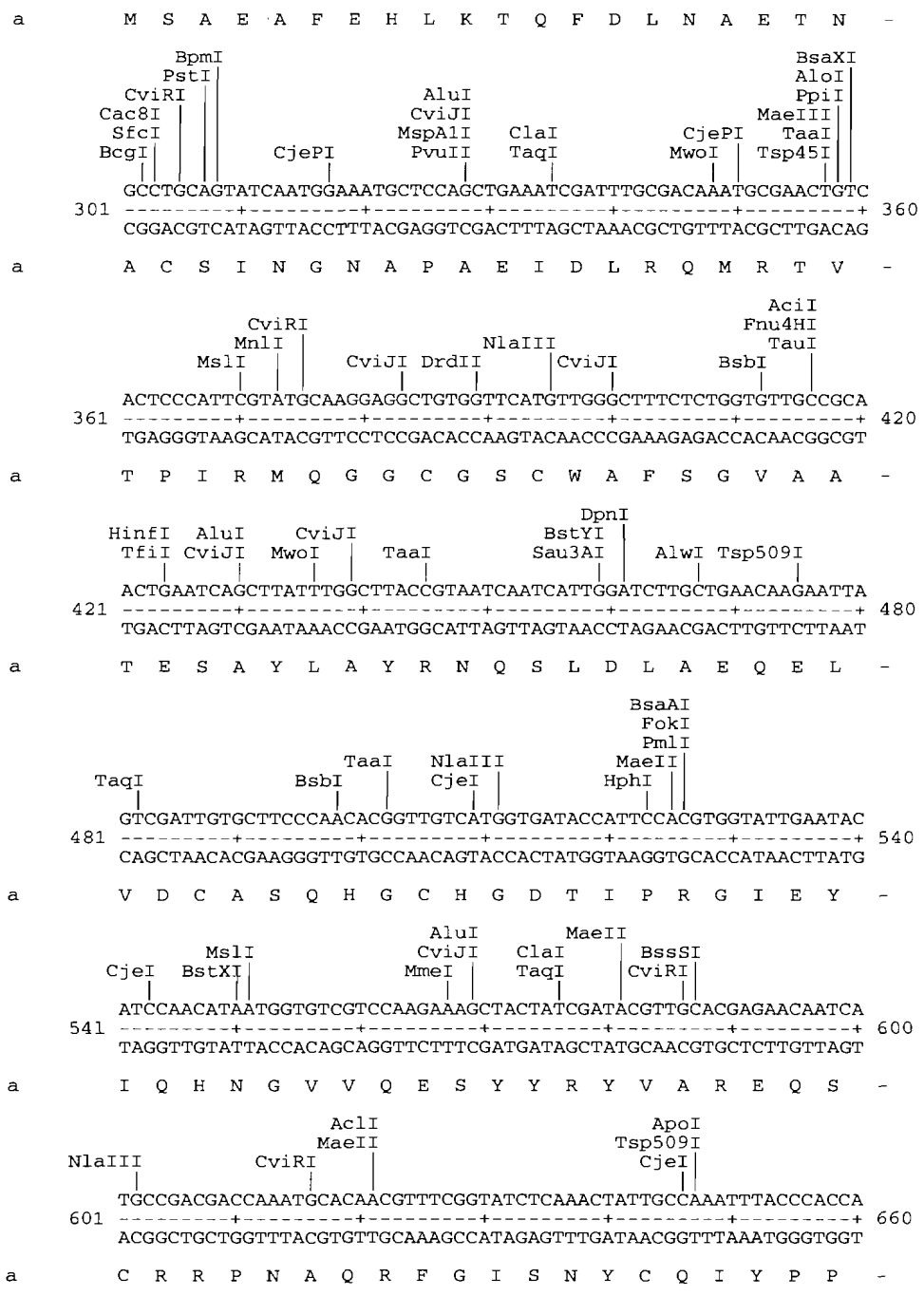
RespOA1.pdf

Attachments

FIGURE 7: DerP1 restriction map of SEQ ID NO. 6.

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a T E S A Y L A Y R N Q S L D L A E Q E L -
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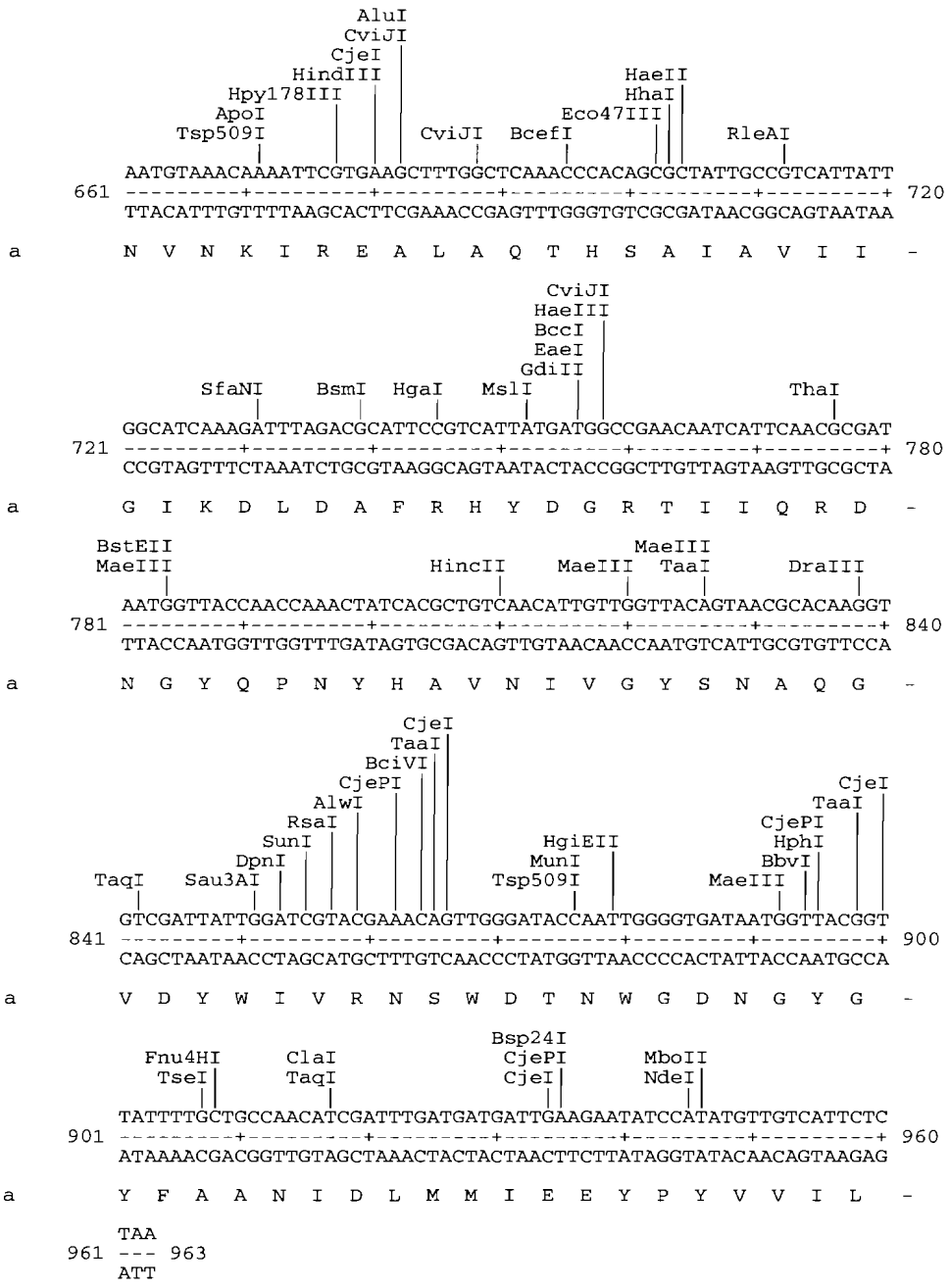
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960
a Y F A A N I D L M M I E E Y P Y V V I L -
TAA
961 --- 963
ATT

FIGURE 8: Sequence of full mutant DerP1 including pre-protein. Active site mutation Cys 132→Ala 132, corresponding to Cys34→Ala34 of the mature protein). Sequence includes coding (listed as SEQ ID NO. [[5]]6) and complementary DNA, and amino acid sequences (listed as SEQ ID NO. [[6]]1).

```
ATGAAAATTGTTTTGGCCATCGCCTCATTGTTGGCATTGAGCGCTGTTTATGCTCGTCCA 60
---------+---------+---------+---------+---------+---------+
TACTTTTAACAAAACCGGTAGCGGAGTAACAACCGTAACTCGCGACAAATACGAGCAGGT
M  K  I  V  L  A  I  A  S  L  L  A  L  S  A  V  Y  A  R  P   20

TCATCGATCAAAACTTTTGAAGAATACAAAAAAGCCTTCAACAAAAGTTATGCTACCTTC 120
---------+---------+---------+---------+---------+---------+
AGTAGCTAGTTTTGAAAACTTCTTATGTTTTTTCGGAAGTTGTTTTCAATACGATGGAAG
S  S  I  K  T  F  E  E  Y  K  K  A  F  N  K  S  Y  A  T  F   40

GAAGATGAAGAAGCTGCCCGTAAAAACTTTTTGGAATCAGTAAAATATGTTCAATCAAAT 180
---------+---------+---------+---------+---------+---------+
CTTCTACTTCTTCGACGGGCATTTTTGAAAAACCTTAGTCATTTTATACAAGTTAGTTTA
E  D  E  E  A  A  R  K  N  F  L  E  S  V  K  Y  V  Q  S  N   60

GGAGGTGCCATCAACCATTTGTCCGATTTGTCGTTGGATGAATTCAAAAACCGATTTTTG 240
---------+---------+---------+---------+---------+---------+
CCTCCACGGTAGTTGGTAAACAGGCTAAACAGCAACCTACTTAAGTTTTTGGCTAAAAAC
G  G  A  I  N  H  L  S  D  L  S  L  D  E  F  K  N  R  F  L   80

ATGAGTGCAGAAGCTTTTGAACACCTCAAAACTCAATTCGATTTGAATGCTGAAACTAAC 300
---------+---------+---------+---------+---------+---------+
TACTCACGTCTTCGAAAACTTGTGGAGTTTTGAGTTAAGCTAAACTTACGACTTTGATTG
M  S  A  E  A  F  E  H  L  K  T  Q  F  D  L  N  A  E  T  N  100

GCCTGCAGTATCAATGGAAATGCTCCAGCTGAAATCGATTTGCGACAAATGCGAACTGTC 360
---------+---------+---------+---------+---------+---------+
CGGACGTCATAGTTACCTTTACGAGGTCGACTTTAGCTAAACGCTGTTTACGCTTGACAG
A  C  S  I  N  G  N  A  P  A  E  I  D  L  R  Q  M  R  T  V  120

ACTCCCATTCGTATGCAAGGAGGCTGTGGTTCAGCTTGGGCTTTCTCTGGTGTTGCCGCA 420
---------+---------+---------+---------+---------+---------+
TGAGGGTAAGCATACGTTCCTCCGACACCAAGTCGAACCCGAAAGAGACCACAACGGCGT
T  P  I  R  M  Q  G  G  C  G  S  A  W  A  F  S  G  V  A  A  140

ACTGAATCAGCTTATTTGGCTTACCGTAATCAATCATTGGATCTTGCTGAACAAGAATTA 480
---------+---------+---------+---------+---------+---------+
TGACTTAGTCGAATAAACCGAATGGCATTAGTTAGTAACCTAGAACGACTTGTTCTTAAT
T  E  S  A  Y  L  A  Y  R  N  Q  S  L  D  L  A  E  Q  E  L  160
```

```
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---------+---------+---------+---------+---------+---------+
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V  D  C  A  S  Q  H  G  C  H  G  D  T  I  P  R  G  I  E  Y   180

ATCCAACATAATGGTGTCGTCCAAGAAAGCTACTATCGATACGTTGCACGAGAACAATCA 600
---------+---------+---------+---------+---------+---------+
TAGGTTGTATTACCACAGCAGGTTCTTTCGATGATAGCTATGCAACGTGCTCTTGTTAGT
I  Q  H  N  G  V  V  Q  E  S  Y  Y  R  Y  V  A  R  E  Q  S   200

TGCCGACGACCAAATGCACAACGTTTCGGTATCTCAAACTATTGCCAAATTTACCCACCA 660
---------+---------+---------+---------+---------+---------+
ACGGCTGCTGGTTTACGTGTTGCAAAGCCATAGAGTTTGATAACGGTTTAAATGGGTGGT
C  R  R  P  N  A  Q  R  F  G  I  S  N  Y  C  Q  I  Y  P  P   220

AATGTAAACAAAATTCGTGAAGCTTTGGCTCAAACCCACAGCGCTATTGCCGTCATTATT 720
---------+---------+---------+---------+---------+---------+
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N  V  N  K  I  R  E  A  L  A  Q  T  H  S  A  I  A  V  I  I   240

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G  I  K  D  L  D  A  F  R  H  Y  D  G  R  T  I  I  Q  R  D   260

AATGGTTACCAACCAAACTATCACGCTGTCAACATTGTTGGTTACAGTAACGCACAAGGT 840
---------+---------+---------+---------+---------+---------+
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N  G  Y  Q  P  N  Y  H  A  V  N  I  V  G  Y  S  N  A  Q  G   280

GTCGATTATTGGATCGTACGAAACAGTTGGGATACCAATTGGGGTGATAATGGTTACGGT 900
---------+---------+---------+---------+---------+---------+
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V  D  Y  W  I  V  R  N  S  W  D  T  N  W  G  D  N  G  Y  G   300

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Y  F  A  A  N  I  D  L  M  M  I  E  E  Y  P  Y  V  V  I  L   320

TAA
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ATT
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FIGURE 9: Sequence of full mutant DerP1 including pre-protein containing a deletion at the propeptide cleavage site (NAET). Sequence includes coding (listed as SEQ ID NO. [[1]]7) and complementary DNA, and amino acid sequences (listed as SEQ ID NO. 2).

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S  S  I  K  T  F  E  E  Y  K  K  A  F  N  K  S  Y  A  T  F   40

GAAGATGAAGAAGCTGCCCGTAAAAACTTTTTGGAATCAGTAAAATATGTTCAATCAAAT 180
---------+---------+---------+---------+---------+---------+
CTTCTACTTCTTCGACGGGCATTTTTGAAAAACCTTAGTCATTTTATACAAGTTAGTTTA
E  D  E  E  A  A  R  K  N  F  L  E  S  V  K  Y  V  Q  S  N   60

GGAGGTGCCATCAACCATTTGTCCGATTTGTCGTTGGATGAATTCAAAAACCGATTTTTG 240
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CCTCCACGGTAGTTGGTAAACAGGCTAAACAGCAACCTACTTAAGTTTTTGGCTAAAAAC
G  G  A  I  N  H  L  S  D  L  S  L  D  E  F  K  N  R  F  L   80

ATGAGTGCAGAAGCTTTTGAACACCTCAAAACTCAATTCGATTTG             AAC 300
---------+---------+---------+---------+---------+---------+
TACTCACGTCTTCGAAAACTTGTGGAGTTTTGAGTTAAGCTAAAC             TTG
M  S  A  E  A  F  E  H  L  K  T  Q  F  D  L                N   100

GCCTGCAGTATCAATGGAAATGCTCCAGCTGAAATCGATTTGCGACAAATGCGAACTGTC 360
---------+---------+---------+---------+---------+---------+
CGGACGTCATAGTTACCTTTACGAGGTCGACTTTAGCTAAACGCTGTTTACGCTTGACAG
A  C  S  I  N  G  N  A  P  A  E  I  D  L  R  Q  M  R  T  V   120

ACTCCCATTCGTATGCAAGGAGGCTGTGGTTCATGTTGGGCTTTCTCTGGTGTTGCCGCA 420
---------+---------+---------+---------+---------+---------+
TGAGGGTAAGCATACGTTCCTCCGACACCAAGTACAACCCGAAAGAGACCACAACGGCGT
T  P  I  R  M  Q  G  G  C  G  S  C  W  A  F  S  G  V  A  A   140

ACTGAATCAGCTTATTTGGCTTACCGTAATCAATCATTGGATCTTGCTGAACAAGAATTA 480
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T  E  S  A  Y  L  A  Y  R  N  Q  S  L  D  L  A  E  Q  E  L   160
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```
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V  D  C  A  S  Q  H  G  C  H  G  D  T  I  P  R  G  I  E  Y   180

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I  Q  H  N  G  V  V  Q  E  S  Y  Y  R  Y  V  A  R  E  Q  S   200

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C  R  R  P  N  A  Q  R  F  G  I  S  N  Y  C  Q  I  Y  P  P   220

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G  I  K  D  L  D  A  F  R  H  Y  D  G  R  T  I  I  Q  R  D   260

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N  G  Y  Q  P  N  Y  A  A  V  N  I  V  G  Y  S  N  A  Q  G   280

GTCGATTATTGGATCGTACGAAACAGTTGGGATACCAATTGGGGTGATAATGGTTACGGT 900
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V  D  Y  W  I  V  R  N  S  W  D  T  N  W  G  D  N  G  Y  G   300

TATTTTGCTGCCAACATCGATTTGATGATGATTGAAGAATATCCATATGTTGTCATTCTC 960
---------+---------+---------+---------+---------+---------+
ATAAAACGACGGTTGTAGCTAAACTACTACTAACTTCTTATAGGTATACAACAGTAAGAG
Y  F  A  A  N  I  D  L  M  M  I  E  E  Y  P  Y  V  V  I  L   320

TAA
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ATT
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FIGURE 10: Sequence of full mutant DerP1 including pre-protein. Active site mutation His 268 → Ala 268, corresponding to His170→Ala170 of the mature protein). Sequence includes coding (listed as SEQ ID NO. [[3]]8) and complementary DNA, and amino acid sequences (listed as SEQ ID NO. [[4]]3).

```
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---------+---------+---------+---------+---------+---------+
TACTTTTAACAAAACCGGTAGCGGAGTAACAACCGTAACTCGCGACAAATACGAGCAGGT
M  K  I  V  L  A  I  A  S  L  L  A  L  S  A  V  Y  A  R  P   20

TCATCGATCAAAACTTTTGAAGAATACAAAAAAGCCTTCAACAAAAGTTATGCTACCTTC 120
---------+---------+---------+---------+---------+---------+
AGTAGCTAGTTTTGAAAACTTCTTATGTTTTTTCGGAAGTTGTTTTCAATACGATGGAAG
S  S  I  K  T  F  E  E  Y  K  K  A  F  N  K  S  Y  A  T  F   40

GAAGATGAAGAAGCTGCCCGTAAAAACTTTTTGGAATCAGTAAAATATGTTCAATCAAAT 180
---------+---------+---------+---------+---------+---------+
CTTCTACTTCTTCGACGGGCATTTTTGAAAAACCTTAGTCATTTTATACAAGTTAGTTTA
E  D  E  E  A  A  R  K  N  F  L  E  S  V  K  Y  V  Q  S  N   60

GGAGGTGCCATCAACCATTTGTCCGATTTGTCGTTGGATGAATTCAAAAACCGATTTTTG 240
---------+---------+---------+---------+---------+---------+
CCTCCACGGTAGTTGGTAAACAGGCTAAACAGCAACCTACTTAAGTTTTTGGCTAAAAAC
G  G  A  I  N  H  L  S  D  L  S  L  D  E  F  K  N  R  F  L   80

ATGAGTGCAGAAGCTTTTGAACACCTCAAAACTCAATTCGATTTGAATGCTGAAACTAAC 300
---------+---------+---------+---------+---------+---------+
TACTCACGTCTTCGAAAACTTGTGGAGTTTTGAGTTAAGCTAAACTTACGACTTTGATTG
M  S  A  E  A  F  E  H  L  K  T  Q  F  D  L  N  A  E  T  N  100

GCCTGCAGTATCAATGGAAATGCTCCAGCTGAAATCGATTTGCGACAAATGCGAACTGTC 360
---------+---------+---------+---------+---------+---------+
CGGACGTCATAGTTACCTTTACGAGGTCGACTTTAGCTAAACGCTGTTTACGCTTGACAG
A  C  S  I  N  G  N  A  P  A  E  I  D  L  R  Q  M  R  T  V  120

ACTCCCATTCGTATGCAAGGAGGCTGTGGTTCATGTTGGGCTTTCTCTGGTGTTGCCGCA 420
---------+---------+---------+---------+---------+---------+
TGAGGGTAAGCATACGTTCCTCCGACACCAAGTACAACCCGAAAGAGACCACAACGGCGT
T  P  I  R  M  Q  G  G  C  G  S  C  W  A  F  S  G  V  A  A  140

ACTGAATCAGCTTATTTGGCTTACCGTAATCAATCATTGGATCTTGCTGAACAAGAATTA 480
---------+---------+---------+---------+---------+---------+
TGACTTAGTCGAATAAACCGAATGGCATTAGTTAGTAACCTAGAACGACTTGTTCTTAAT
T  E  S  A  Y  L  A  Y  R  N  Q  S  L  D  L  A  E  Q  E  L  160
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GTCGATTGTGCTTCCCAACACGGTTGTCATGGTGATACCATTCCACGTGGTATTGAATAC 540
---------+---------+---------+---------+---------+---------+
CAGCTAACACGAAGGGTTGTGCCAACAGTACCACTATGGTAAGGTGCACCATAACTTATG
V  D  C  A  S  Q  H  G  C  H  G  D  T  I  P  R  G  I  E  Y   180

ATCCAACATAATGGTGTCGTCCAAGAAAGCTACTATCGATACGTTGCACGAGAACAATCA 600
---------+---------+---------+---------+---------+---------+
TAGGTTGTATTACCACAGCAGGTTCTTTCGATGATAGCTATGCAACGTGCTCTTGTTAGT
I  Q  H  N  G  V  V  Q  E  S  Y  Y  R  Y  V  A  R  E  Q  S   200

TGCCGACGACCAAATGCACAACGTTTCGGTATCTCAAACTATTGCCAAATTTACCCACCA 660
---------+---------+---------+---------+---------+---------+
ACGGCTGCTGGTTTACGTGTTGCAAAGCCATAGAGTTTGATAACGGTTTAAATGGGTGGT
C  R  R  P  N  A  Q  R  F  G  I  S  N  Y  C  Q  I  Y  P  P   220

AATGTAAACAAAATTCGTGAAGCTTTGGCTCAAACCCACAGCGCTATTGCCGTCATTATT 720
---------+---------+---------+---------+---------+---------+
TTACATTTGTTTTAAGCACTTCGAAACCGAGTTTGGGTGTCGCGATAACGGCAGTAATAA
N  V  N  K  I  R  E  A  L  A  Q  T  H  S  A  I  A  V  I  I   240

GGCATCAAAGATTTAGACGCATTCCGTCATTATGATGGCCGAACAATCATTCAACGCGAT 780
---------+---------+---------+---------+---------+---------+
CCGTAGTTTCTAAATCTGCGTAAGGCAGTAATACTACCGGCTTGTTAGTAAGTTGCGCTA
G  I  K  D  L  D  A  F  R  H  Y  D  G  R  T  I  I  Q  R  D   260

AATGGTTACCAACCAAACTATGCTGCTGTCAACATTGTTGGTTACAGTAACGCACAAGGT 840
---------+---------+---------+---------+---------+---------+
TTACCAATGGTTGGTTTGATACGACGACAGTTGTAACAACCAATGTCATTGCGTGTTCCA
N  G  Y  Q  P  N  Y  A  A  V  N  I  V  G  Y  S  N  A  Q  G   280

GTCGATTATTGGATCGTACGAAACAGTTGGGATACCAATTGGGGTGATAATGGTTACGGT 900
---------+---------+---------+---------+---------+---------+
CAGCTAATAACCTAGCATGCTTTGTCAACCCTATGGTTAACCCCACTATTACCAATGCCA
V  D  Y  W  I  V  R  N  S  W  D  T  N  W  G  D  N  G  Y  G   300

TATTTTGCTGCCAACATCGATTTGATGATGATTGAAGAATATCCATATGTTGTCATTCTC 960
---------+---------+---------+---------+---------+---------+
ATAAAACGACGGTTGTAGCTAAACTACTACTAACTTCTTATAGGTATACAACAGTAAGAG
Y  F  A  A  N  I  D  L  M  M  I  E  E  Y  P  Y  V  V  I  L   320

TAA
---
ATT
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FIGURE 11: Amino acid sequence (SEQ ID NO: [[7]]4) for the mutant DerP1 as encoded by pNIV4842, and shown in figure 5.

1 MLLVNQSHQG FNKEHTSKMV SAIVLYVLLA AAAHSAFAAD PRPSSIKTFE

51 EYKKAFNKSY ATFEDEEAAR KNFLESVKYV QSNGGAINHL SDLSLDEFKN

101 RFLMSAEAFE HLKTQFDLNA CSINGNAPAE IDLRQMRTVT PIRMQGGCGS

151 CWAFSGVAAT ESAYLAYRNQ SLDLAEQELV DCASQHGCHG DTIPRGIEYI

201 QHNGVVQESY YRYVAREQSC RRPNAQRFGI SNYCQIYPPN ANKIREALAQ

251 THSAIAVIIG IKDLDAFRHY DGRTIIQRDN GYQPNYHAVN IVGYSNAQGV

301 DYWIVRNSWD TNWGDNGYGY FAANIDLMMI EEYPYVVIL*

FIGURE 12: Amino acid sequence (SEQ ID NO: [[8]]5) for the mutant DerP1 as encoded by pNIV4843, and shown in figure 6.

1 MLLVNQSHQG FNKEHTSKMV SAIVLYVLLA AAAHSAFAAD PRPSSIKTFE

51 EYKKAFNKSY ATFEDEEAAR KNFLESVKYV QSNGGAINHL SDLSLDEFKN

101 RFLMSAEAFE HLKTQFDLNA ETNACSINGN APAEIDLRQM RTVTPIRMQG

151 GCGSAWAFSG VAATESAYLA YRNQSLDLAE QELVDCASQH GCHGDTIPRG

201 IEYIQHNGVV QESYYRYVAR EQSCRRPNAQ RFGISNYCQI YPPNANKIRE

251 ALAQTHSAIA VIIGIKDLDA FRHYDGRTII QRDNGYQPNY HAVNIVGYSN

301 AQGVDYWIVR NSWDTNWGDN GYGYFAANID LMMIEEYPYV VIL*